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To:

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)Applicant's or agent's file reference
see form PCT/ISA/220**FOR FURTHER ACTION**
See paragraph 2 belowInternational application No.
PCT/US2004/015886International filing date (day/month/year)
20.05.2004Priority date (day/month/year)
20.05.2003International Patent Classification (IPC) or both national classification and IPC
G08C19/28Applicant
JOHNSON CONTROLS TECHNOLOGY COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/015886

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/015886

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-26
	No: Claims	
Inventive step (IS)	Yes: Claims	3-5
	No: Claims	1,2,6-26
Industrial applicability (IA)	Yes: Claims	1-26
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: FR-A-2 792 444 (LAI JUNG HUA) 20 October 2000 (2000-10-20)

D2: WO 00/70577 A (U S ELECTRONICS COMPONENTS COR) 23 November 2000 (2000-11-23)

D3: WO 02/080129 A (KONINKL PHILIPS ELECTRONICS NV) 10 October 2002 (2002-10-10)

2. The present application does not meet the criteria of **Article 33(1) PCT**, because the subject-matter of claims 1 and 8 does not involve an inventive step in the sense of **Article 33(3) PCT**.

- 2.1 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 1 and discloses: (the references in parentheses applying to this document):

A method for actuating a remote device having a receiver using an RF transmitter in a vehicle to transmit variable code signals, the RF transmitter including a memory having variable code characteristics associated with a plurality of different remote devices (page 5, lines 13 - 18), the method comprising:
initiating an operating sequence to actuate the remote device;
generating a plurality of RF carrier signals ; and
transmitting the plurality of RF carrier signals to the receiver of the remote device in order to remotely actuate the remote device (page 4, lines 19 - 26, page 6, lines 13 - 28).

- 2.2 The subject-matter of claim 1 differs from what is known in document **D1** in that it is not directly derivable that to each different RF carrier is associated different code characteristics. However the skilled person in the art of remote controllers would readily understand that if variable code characteristics are associated with different remote devices, each RF carrier signal must include the corresponding code characteristics in order for the receiver to detect the remote control signal.

- 2.3 The document **D1** is regarded as being the closest prior art to the subject-matter of claim 8 and discloses: (the references in parentheses applying to this document):

A method for training a trainable RF transmitter in a vehicle to transmit variable code signals used to actuate a remote device having a receiver, the trainable transmitter having a memory including stored variable code characteristics for a plurality of different remote devices (page 5, lines 13 - 18), the method comprising:
initiating a training sequence;
generating at least one RF carrier signal;
transmitting the at least one RF carrier signal to the receiver of the remote device (page 6, lines 13 - 22);
repeating the generating and transmitting steps for the variable code characteristics of each remote device in the plurality of different remote devices until feedback is received from a user that the remote device is activated; and
upon receiving an indication that the remote device is activated, storing an identifier of the variable code characteristics that activated the remote device (page 6, line 29 - page 7, line 12).

Similar to the case of claim 1 the subject-matter of claim 8 differs from what is known in document **D1** in that it is not directly derivable that to each different RF carrier are associated different code characteristics and therefore claim 8 is for the same reasons applied for claim 1 not inventive.

The subject-matter of claims 1 and 8 is therefore not inventive (Article 33(1) and (3) PCT).

- 2.4 Claim 15 differs from claim 8 only in that now a remote device is identified and selected by the user. This feature is also disclosed in **D1** (page 8, lines 6 - 20) and therefore the subject-matter of claim 15 is also not inventive.
- 2.5 Similar objections as for claim 15 apply, mutatis mutandis, to the subject-matter of the corresponding independent claim 21 and to the corresponding transmitter claim 23 which therefore are also considered not inventive.
3. Dependant claims 2, 6 - 7, 9 - 14, 16 - 20, 22 and 24 - 26 do not contain any features which, in combination with the features of any claim to which they refer,

meet the requirements of the **PCT** in respect of inventive step, the reasons being as follow:

- claim 2: (page 2, lines 27 - 31; page 3, lines 9 - 15)
- claims 6, 10 and 20: (page 2, lines 23 - 25; page 3, line 34 - page 4, line 3)
- claim 7: (page 3, lines 28 - 32)
- claims 9, 14, 16 - 18, 22 and 24: (page 6, line 29 - page 7, line 12; page 8, lines 6 - 20). Furthermore the subject-matter of these claims is also anticipated by the teachings of **D2** (see: page 11, lines 13 - 20)
- claim 11: (page 6, lines 13 - 22)
- claim 12: (page 6, line 29 - page 7, line 12)
- claim 13: **D3** (see: page 3, lines 6 - 10)
- claim 19: It is known to the person skilled in the art to use trainable transmitters coupled to a display presenting data related to the different remote devices.
- claims 25 and 26: It is known to the person skilled in the art to mount a trainable transmitter at any convenient place in a car.

The subject-matter of dependant claims 2, 6 - 7, 9 - 14, 16 - 20, 22 and 24 - 26 is therefore not inventive (**Article 33(3) PCT**).

4. The combination of the features of dependent claims 3 - 5 is neither known from, nor rendered obvious by, the available prior art. The reasons are as follows: In the prior art the plurality of RF carrier signals are transmitted sequentially and never simultaneously. Consequently dependant claims 3 - 5 contain features which in combination with the features of claim 1 to which they refer, meet the requirements of the **PCT** in respect of novelty and inventive step.

5. **Re Item VIII**

Certain observations on the international application

Although claims 1 and 8 and claims 15 and 21 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of **Article 6 PCT**.